

Something happened to the checklists in the transfer from one format to another – so please go back and highlight your original responses a specific color so you can indicate that they have been selected. I had a few additions I suggested so you can add those to. I'm not deducting points for that part – you just need to highlight them for your final wiki version.

Lesson Plan Framework

Teacher: Nicole Tuggle Russell, Leslie Lane-Wilson, Roger Duncan

Grade Level: 1st Grade

Course Unit: Science

Lesson Title: Magnets

Length of Lesson: 60 minutes

Focus Question/Big Idea/Learning Goals: What do you want students to be able to know as a result of this lesson? What questions or big ideas drive the instruction?

Learning Objectives: What do you want students to be able to do as a result of this lesson? Include academic language and vocabulary objectives too. Objectives must be measureable.

Focus Questions: What makes materials magnetic or non-magnetic?

Big Idea: Different objects are attracted to magnets.

Learning Goal: Students will be able to identify objects that are attracted to magnets.

Students will be able to identify whether an object will be attracted or repelled by a magnet through experimentation.

STANDARDS: Reference State (Social Studies and Science) Common Core (Math and ELA only)

GLE - 0107.12.1 à Investigate materials that are attracted to magnets

Check for Understanding - 0107.12.1 à Identify and classify objects in the classroom as magnetic and non-magnetic.

Academic Language (discipline specific) – list terms

Academic Vocabulary (lesson specific)

Processes

Experiment

Inquiry

Guided Inquiry

5-E Lesson Plan Format

Prediction

Assessment

Think-Pair-Share

Popsicle Stick Questioning

Traffic Light Cards

Tools

Worksheets

Scientific Discourse

Predict

Record

Communicate

Reflect

Magnet-something that attracts

Magnetic- possessing an extraordinary power or ability to attract

Repel- to fight against

Attract- to pull to or draw toward oneself or itself

Pre-Assessment: How will you determine prior knowledge?

Hook: How will you catch the attention of your students and focus their minds on today's learning goals?

Real World Connection: How are learning goals relevant to students' lives?

Student Reflection: How will you provide for student reflection?

Chain Notes- A sheet with the questions: What are Magnets? Why would you use a magnet? What does it mean to be magnetic? Students will write at least two sentences to one question and then pass the sheet to the next student.	Read “That Magnetic Dog” The last question with the Chain Notes Fact, “what does it mean to be magnetic?” will be my transition to the book.	The real world connection will be the discuss question in the pre-assessment question, “why would you use a magnet?”. Answers could be for the refrigerator, magnetic screwdrivers for holding screws, can opener. Do you have any toys that use magnets? When you do work on your computer and save it you are using magnets!	Student reflection will be discussion of and during the worksheet chart completed and the FACT Four Corners.
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ASSESSMENT What evidence will you collect that students have mastered the learning objectives?		
Formative Assessment of Lesson Objectives: How will you monitor and give feedback during the lesson? Be specific.	Summative: How will performance be measured?	
	What evidence will you collect? Check all that apply	How will you define mastery? Attach relevant rubrics and grading criteria as needed.
Chain Notes- Students will write at least two sentences to one question and then pass the sheet to the next student. Four Corners- After experiment, teacher will designate each corner of the room with an item. The teacher will ask what items are or are not magnetic. Students will go to any corner to answer the question. This gives a visual of understanding. Fist To Five- After lesson is complete; teacher will ask students “Fist To Five” for their understanding. Closed fist is no understanding of the lesson; one finger is very little understanding, and range up to five fingers, which is full understanding of the lesson.	Project Essay Experiment Short Answer Presentation Multiple Choice Other _____	Ability to identify magnetic vs. non-magnetic Grading Criteria –Did the student complete the magnet experiment? Is the magnetic/non-magnetic items listed in the correct category?
Assessment requires students to: Check all that apply <div> <div> <ul style="list-style-type: none"> Organize Interpret Analyze Synthesize Evaluate information </div> <div> € Writing: € Draw Conclusions €Make Generalizations €Produce arguments </div> <div> Connection to: € prior learning €life experiences </div> </div>		

Academic Feedback: How will you provide feedback to students based upon the data you collected in assessments? Academic feedback will be provided by discussion during the FACT assessments. Return graded experiment sheets that were conducted during the experiment. Conference individually as needed. – Yes!			
Learning Segments and Pacing: What strategies, procedures, and transitions, will you use? What essential questions will you address in each segment?		How do learning segments align with objectives and allow for higher order thinking? What questions do you ask that promote higher order thinking?	Materials
How will you begin? Lesson will begin by using the FACT pre-assessment called Chain Notes. After FACT is complete, discuss with class. Last question will transition to our book. (5 minutes) <u>Engage-</u> Read “That Magnetic Dog” and discuss it. (10 minutes)	Time	What makes the dog magnetic? Have you ever heard the word magnetic used to describe someone? What does it mean to be magnetic?	Chain Note sheet with three questions. Book “That Magnetic Dog”
	15 Min		
	Be gin ning		

Transition?			
What will you do during the lesson?	Time	Make a prediction about magnets.	Chalk
Explore - Students will have a few minutes to examine the items on their table and make predictions of which items are or are not magnetic. (2-3 minutes)		What makes an object magnetic?	Nail
Experiment - Student will receive the worksheet "Stick To It" . Teacher will explain that students will begin "fishing" items on students' table with a magnet fishing rod (made for students prior to class using a ruler, string and a magnet). Students will then place the items in the correct category ("My magnet sticks to" or My magnet does not stick to") (15 Minutes)		What other objects in the world could be magnetic?	Scissors Eraser Marble Coin Brad (Fastener)
Explain - After experiment, teacher will use FACT Four Corners. Teacher will label verbally each corner as a item. Example: Point to left back corner as "Paperclip" and right back corner as "cottonball". Teacher will ask which corners are magnetic or non-magnetic. Students will physically walk to the corner they feel is the correct answer. (12 Minutes)	30 Min	Magnets are all around us. Link below are examples magnets in a household to present to students how we use magnets daily. http://www.ehow.com/list_7425_188_household-objects-use-magnets.html	Rubberband Pins String Magnet "Stick To It" Worksheet "Mighty Magnet" Worksheet Smartboard
Transition- Discuss magnets we use in everyday life. (1-2 Minutes)			
How will you close the lesson?	Time	What can a magnet be used for?	Smartboard
"The Day My Feet Were Magnets" – Write a story as a class. Using Inspiration / Kidspiration as a brainstorming tool. (13 Minutes)		What would be attracted to your feet?	Inspiration / Kidspiration
Will use FACT "Fist To Five". Teacher will ask students "Fist To Five" for their understanding. Closed fist is no understanding of the lesson; one finger is very little understanding, and range up to five fingers, which is full understanding of the lesson. (2 Minutes)	15 Min	Would this make your day more difficult?	

TTU 12/12/12 5:17 AM

Comment: You would need to supplement these activities to be able to keep 1st graders occupied for 30 minutes.

TTU 12/12/12 4:59 AM

Comment: Use articles such as "the" to describe the students and teacher throughout the plan.

TTU 12/12/12 5:01 AM

Comment: Need to describe how these are used within the plan.

Technology Integration

Teacher Strategies – Best Practices

<p>Check all that apply</p> <ul style="list-style-type: none"> • Word Processing • Power Point • Internet Resources • Graphics/Charts • Internet Research • Web 2.0 Tool(s) • Interactive whiteboard <p>Other: Inspiration/Kidspiration</p>	<p>Check all that apply</p> <ul style="list-style-type: none"> • Student choice • Modeling • Cooperative learning • Independent learning • Implementing pre, post, and during lesson activities • Teaching metacognitive strategies • Hands-on learning/manipulatives utilized • Higher-ordering thinking skills • Real-world connections • Criteria charts created (student-driven; supports learning by defining and clarifying a task) • Rubrics created (student-centered) • Mentor texts • Anchor charts (a reference tool that “anchors” new and ongoing learning to key concepts previously intro.) • Research/research materials • Evidence of assessment for learning (teacher modifies instruction based on students’ understanding) • Academic language used in context • Conferencing • Other (please explain)
<p>Grouping Options: How will your groups be organized? What roles will students fulfill? Check all that apply.</p>	<p>Differentiation: How will you differentiate instruction to accommodate individual students’ anticipated learning difficulties, interests, and/or cultural heritage?</p>
<ul style="list-style-type: none"> • Individual • Pairs • Cooperative • Whole Group 	<p>Students are grouped with 3-4 students per group. Level of students’ academic abilities could already grouped in classroom arrangement. This does not explain how you have used differentiation within this lesson. You could relate specifically to Howard Gardner’s Intelligences that are addressed.</p>
<p>Intervention: How will you use the results of the assessment(s) to inform future instruction?</p>	<p>Special Situations in the Classroom? Are there any management and/or safety issues that need to be considered?</p>
<p>Individual conferencing, reading materials in text, use of an app or internet website. (Need to describe in sentences how each of these ideas will be used to meet the needs of students that need intervention)</p>	<p>All computers will be labeled as a No Magnet Zone. Students will be advised about sharp and small objects.</p>
<p>Rationale/Theoretical Reasoning: What sources support your pedagogy and methodology? Why have you chosen the strategies you have elected to use?</p>	

Jerome Bruner said, learners should not spend their time talking about science, they should be doing science. For instance, students should not be in the classroom reading from a textbook and expected to know the knowledge. Students will learn the content better if they are up doing science. We will use this during our magnet lesson. Instead of teaching out of a book, students will be learning the content while completing an experiment. Magnets will be used to show how certain items are attracted. This is a good visual for students. This instruction of visualization with magnets is more useful than the students trying to visualize the action of magnetism on their own.

Moyer, R.H., Hacett, J.K., Everett, S.A. 2007. Teaching Science As Investigations; Modeling Inquiry Through Learning Cycle Lessons. Pearson Education. (Excellent reference to theorist Bruner.)

TTU 12/12/12 5:08 AM

Comment: Should this be Bruner?

TTU 12/12/12 5:07 AM

Comment: Should this be in quotes?

TTU 12/12/12 5:08 AM

Comment: Awkward wording.

Barrow (1987) investigated students' awareness of magnets and magnetism across age ranges and found that they were aware of magnets through their everyday experiences of sticking objects to refrigerators with magnets. However, before instruction, few students could offer explanations of magnetism, especially in terms of forces and how magnets work (Driver et al. 1994).

This is yet another way to improve students way of thinking about science and magnets, by connecting the real world to the actual content to be learned it enables students to better retain and implement the information learned. (excellent reference to research and how it impacts instruction)

TTU 12/12/12 5:13 AM

Comment: This should be in direct quotes.

Nice job using the Formative Assessment probe as well. For future reference, be sure to cite the document where you received the information – not just the research from the probe. These probes are idea to use for most science lessons.

